

# Orwick Diversion Fish Screen Improvement Project

## Environmental Assessment

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### 1. INTRODUCTION

This environmental assessment (EA) was prepared by the U.S. Fish and Wildlife Service (Service), as the federal lead agency, in compliance with the National Environmental Policy Act (NEPA), to assist with the planning and decision-making for the Orwick Diversion Fish Screen Improvement Project (proposed action). Installation of an effective fish screen and bypass at the Orwick Diversion, a private, small irrigation water diversion, on Battle Creek was identified as a priority action as part of the Final Anadromous Fish Restoration Plan (USFWS 2001b), in accordance with the Central Valley Project Improvement Act (CVPIA) (*Title 34 of Public Law 102-575, Section 3406(b)(1)*), which authorizes the development and implementation of programs intended to, at a minimum, double the natural production of anadromous fish in California's Central Valley rivers and streams. The proposed action emerged from an ongoing collaboration between the Service, California Department of Fish and Game (CDFG), National Marine Fisheries Service (NMFS), and Bureau of Land Management (BLM) to design, install, and operate an effective fish protection solution at the Orwick Diversion canal. The proposed action is needed to further implementation of effective fish protection at the Orwick Diversion and resolve performance deficiencies that have developed with the existing fish screen and bypass, which was originally installed in 1998.

The proposed action consists of two components: (1) a re-engineered bypass pipeline and outfall to the creek, and (2) a new headgate water control structure. The existing fish screen at the Orwick Diversion is owned and operated by CDFG. Under the proposed action, the re-engineered fish bypass pipe, an integral feature of the fish screen facility, will be owned and maintained by the CDFG. The fish bypass pipeline will be funded by the Service and constructed on land managed by BLM. A new, upgraded headgate flow control structure on the diversion is needed to prevent entrainment of fish, and "take" of fish species listed under the Endangered Species Act of 1973, as amended (ESA), during high flow events that overtop the screen. However, federal funding from the Service for upgrade and replacement of the headgate structure cannot be made available until an operation and maintenance (O&M) agreement is in place between CDFG and the private water rights holder, who is the owner of the diversion. Currently, an O&M agreement for the proposed upgraded headgate structure is being negotiated between CDFG and the owner of the diversion; however, an agreement has not been reached (M. Berry, CDFG-Redding, pers comm.). Federal permits and approvals, as well as NEPA documentation, are required for both components of the project. This EA addresses the direct, indirect, and cumulative effects of the proposed action and provides information for the lead agency to determine whether the proposed action would have a significant effect on the human environment.